Splenic Dermoid Cyst in a 12 Year Old Boy

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Abstract
A rare splenic dermoid cyst in a 12-year-old boy is reported here in. The patient was referred to us with the chief complaint of left upper abdominal swelling for a week which was non tender. The lesion was demonstrated by ultrasonography and computed tomography to be a cystic lesion containing serous fluid. A splenectomy was performed. Histopathological findings demonstrated the cyst to be a dermoid cyst of the spleen. To avoid the risk of infection following splenectomy, polyvalent pneumococcus and meningococcus and hemophilus influengae vaccine was administered. The patient recovered uneventfully.

Keywords: Dermoid cyst of spleen; USG; CT scan

Introduction
Dermoid cysts rarely occur in spleen. Such cysts include dermoid elements within mesodermic structure, the pathogenesis of which is controversial. Here we describe the rare case of dermoid cyst in spleen in a 12 year old boy. We utilize the ultrasonography and CT scan of whole abdomen to determine the origin of the cyst.

Case Presentation
A 12 year old boy was admitted in Dhaka Medical College Hospital under Pediatric Surgery Department with complaint of left upper abdominal swelling, which was non tender. On physical examination, there was a swelling about (9 cm x 8 cm) in diameter in left hypochondriac region, firm in consistency, surface was smooth, and insinuation was not possible. His past medical history was unremarkable. He has no significant history of trauma to abdomen. Routine, biochemical and hematological parameters were normal. Ultrasonography demonstrated a cystic mass (12.4 cm x 11.0 cm) (Figure1) extending from epigastric region to spleno renal angle. The mass filled with hazy content. CT scan revealed a large well defined rounded cystic area measuring about (10.2 cm x 9.9 cm) noted at region of lesser sac compressing the stomach (Figure 2a and b). Ba meal x ray also showed stomach is compressed forward (Figure 3). Based on these investigations patient was diagnosed as a case of splenic cyst.

Operation was performed (Figure 4) after getting adequate informed written consent, while considering the possibility of complications such as rupture, intracystic hemorrhage and infection. At laparotomy spleen was measuring (13 x 10 x 4) cm, almost whole of the spleen contain the cystic lesion measuring (10 cm x 9.5 cm), weighted about 390 gm. A serous yellowish fluid was aspirated (Figure 5). Splenectomy was performed (Figure 6). Biochemical study of the fluid revealed the following: amylase 70 u/l, protein 7.70 g/dl, carcino-embryonic antigen 5 ng/dl. No other abnormality was found. Post operative period was uneventful.

Pathological Findings
The specimen of the spleen measuring (13 cm x 10 cm x 4 cm), was submitted for pathological examination. Cut sections show an opened-up cyst measuring (10 cm x 9.5 cm) with wall thickness 0.2 cm. Rest of the spleen are grossly unremarkable. On histologic examination the cyst wall was lined by squamous epithelium and surrounded by fibrous tissue. In some areas, the squamous epithelium shows granular cell layer and keratin material along with sebaceous structures. The histopathological aspect of description is compatible with the diagnosis of dermoid cyst. To avoid the risk of infection due to splenectomy the polyvalent pneumococcal, meningococcal and hemophilus influengae-b vaccine was administered on the 10th post operative day. The patient has been since in good health without any complication.

Discussions
The splenic cysts are a seldom-encountered pathology, usually their discovery being incidental.
The most often encountered types are the primary parasitic, non parasitic and congenital cysts. Non parasitic cysts can be further divided into true and false cysts. False cysts have no epithelial or endothelial lining and often result from trauma, hemorrhage and infection [1]. On the other hand true cysts have stratified squamous epithelial lining and referred as epithelial cysts. Of such epithelial cysts, less than 10% dermoid cyst lacking skin appendages and rests are epidermoid cysts with skin appendages.

Dermoid cyst is a rare lesion but the frequency of reports in last two decades has increased due to advances of radiographic imaging technology of spleen, including ultrasonography, scintigraphy, CT scanning and MRI. Ultrasonography can provide useful information to show whether the mass is cystic or solid. A CT scan can demonstrate the nature of the mass and demonstrate its relationship to other adjacent organs [2]. MR images are nonspecific and often provide no useful additional information [3]. Panossian et al. [4] reviewed 160 cases of epidermoid cysts of spleen reported in the English literature between 1929 and 1990.

**Conclusion**

The clinical care previously presented, generally respects the descriptions of the specialized literature. The diagnosis has been incidentally established during the investigation for a painless left hypochondriac swelling. The surgical treatment has been the first recommendation, given the size of the cyst and some symptoms. We have favored the open surgical approach given the dimensions of the cyst, the tight connection to the left kidney and the possibility of occurrence of some serious surgical complications, such as hemorrhage and injury to the neighboring organs. The certified etiological diagnosis has been provided by the anatomo-pathological exam, which has indicated the inner cystic epithelium lining.
References


